



ACQUISITION,
TECHNOLOGY
AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3010

JAN 10 2005

MEMORANDUM FOR CHAIRMAN, DEFENSE SCIENCE BOARD

SUBJECT: Terms of Reference -- Defense Science Board 2005 Summer Study on
Reducing Vulnerabilities to Weapons of Mass Destruction

You are requested to form a Defense Science Board (DSB) Summer Study on Reducing Vulnerabilities to Weapons of Mass Destruction (WMD). The 2005 Summer Study should concentrate on a State's clandestine employment of WMD or the use of such capability by a terrorist.

Much of the dialogue and activity concerning the reduction of vulnerability to WMD effects focus on limited aspects (e.g. detection, defeat, consequence management) of a single modality – whether it be biological, chemical, or nuclear/radiological. While single modality approaches are useful, they do not lend themselves to the development of an integrated system. In addition, by focusing on separate aspects of the overall defense outside of an end-to-end architecture, the proper balance of requirements and resource allocations across architectural components cannot and has not been made. WMD defense must be able to handle the different modalities singularly or in combination across the spectrum of WMD from preemption to consequence management. The current segmented approach begs the question whether coverage gaps exist in this spectrum and if there are misplaced priorities in the programs designed to protect the US from WMD attacks. In addition, the current approach does not provide any mechanism to rationalize the effort and likely lends itself to suboptimal resource allocation, especially with the “sharp” lines being drawn between national security and homeland security.

The Summer Study should develop national enterprise architecture to reduce vulnerabilities to WMD. The architecture should identify those areas where integration across modalities would pay off, as well as the issues that are uniquely tied to a single modality. Ideally, the architecture should be able to adapt to shifting priorities in WMD defense which may arise from new intelligence or other sources and adapt to different generations of WMD defensive systems which will probably be procured under a spiral development model. An integrated WMD system would be able to assess from end to end the state of affairs in WMD defense.

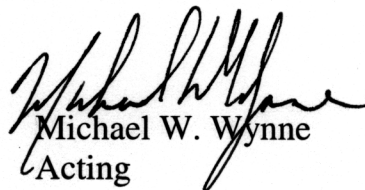
The Summer Study should develop an enterprise architecture which covers the entire range of U.S. government capabilities and responsibilities. Using this architecture, the Summer Study should assess:



- Which WMD modalities are the U.S. most vulnerable to? What factors might change the vulnerability over time?
- Functional "requirements" of envisioned WMD defense capability – quantified to maximum extent possible.
- Develop an overall architecture including distributed characteristics, interfaces, and commonalities.
- Examine current and planned U.S. investments in WMD defense. Recommend a prioritized and comprehensive investment strategy.
- Which organizational construct best serves the implementation of an integrated WMD defense, both nationally and within DoD?

The Summer Study will be co-sponsored by me as the acting USD(AT&L) and the Assistant to the Secretary of Defense (Nuclear, Chemical and Biological Defense Programs). Mr. Larry Lynn and Mr. Bob Nesbit will serve as chairmen of the Summer Study. Mr. Mike Evenson, DTRA, will serve as Executive Secretary. LTC Scott Dolgoff, USA will serve as the Defense Science Board Secretariat representative.

The Task Force will operate in accordance with the provisions of P.L. 92-463, the "Federal Advisory Committee Act," and DoD Directive 5105.4, the "DoD Federal Advisory Committee Management Program." It is not anticipated that this Task Force will need to go into any "particular matters" within the meaning of section 208 of Title 18, U.S. Code, nor will it cause any member to be placed in the position of acting as a procurement official.


Michael W. Wynne
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